



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,720	11/30/2001	Andrew M. Spencer	10014185-1	4492

7590 01/17/2007
HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER

RUTZ, JARED IAN

ART UNIT	PAPER NUMBER
----------	--------------

2187

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

09/996,720

Applicant(s)

SPENCER ET AL.

Examiner

Jared I. Rutz

Art Unit

2187

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6,8,9,12,13,16-18,20-27 and 30-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6,8,12,13,16-18,23-27 and 30-33 is/are rejected.
- 7) ☒ Claim(s) 9 and 20-22 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 July 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-6, 8-9, 12-13, 16-18, 20-27, and 30-33 are pending in the instant application. The rejections of claims 1-6, 8-9, 12-13, 16-18, 20-27, and 30-33 presented in the Final Office action dated 6/27/2005 have been withdrawn in light of the Board of Patent Appeals and Interferences decision dated 9/28/2006. This Office action contains new grounds of rejection not necessitated by amendment to a reference not of record in the instant application. Accordingly, prosecution in this application is reopened, and this Office action is made Non-Final.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Fig. 2, 210, 220, 230. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following claimed features must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

4. Claim 1:

- a. *"a memory card"* is not shown
- b. *"an area of memory of the memory card"* is not shown

5. Claim 2:

- c. *"monitoring write events, read events and power-on events"* is not shown

6. Claim 3:

- d. *"changing a count associated with an event descriptor when the event occurs"* is not shown

7. Claim 4:

- e. *"storing a value parameter associated with said event descriptor when the event occurs"* is not shown

8. Claim 5:

- f. *"changing a running total associated with said event descriptor when the event occurs"* is not shown

9. Claim 6:

- g. *"a dedicated area in said memory card"* is not shown

Art Unit: 2187

10. Claim 8:

- h. *"changing a count associated with an event description when the event occurs"* is not shown
- i. *"displaying the count on the display on the memory card"* is not shown

11. Claim 9:

- j. *"a plurality of event descriptors"* is not shown
- k. *"displaying a plurality of the event descriptors"* is not shown
- l. displaying additional usage information associated with the selected event descriptor is not shown

12. Claim 12:

- m. *"creating write and read commands"* is not shown

13. Claim 13:

- n. *"changing a count associated with an event descriptor"* is not shown
- o. *"comparing the count to a threshold"* is not shown
- p. *"if the threshold is equaled or exceeded, then causing a message to be sent"* is not shown

14. Claim 16:

- q. *"an area of memory of the memory card for recording information about usage of the memory card"* is not shown

15. Claim 17:

- r. *"an electronic device"* is not shown
- s. *"a portable memory card"* is not shown

Art Unit: 2187

- t. *"an area of memory on the memory card itself"* is not shown
 - u. *"a display on the memory card"* is not shown
16. Claim 18:
- v. *"counting physical insertions of the memory card into the electronic device"* is not shown
17. Claim 20:
- w. *"counting a number of times an image file was written to the memory card"* is not shown
18. Claim 21:
- x. *"counting a number of times music files were written to the memory card"* is not shown
19. Claim 22:
- y. *"tracking a number of times the memory card is formatted"* is not shown
20. Claim 23:
- z. *"providing a portable memory card"* is not shown
 - aa. *"an area of memory on the memory card"* is not shown
 - bb. *"a display on the memory card"* is not shown
21. Claim 24:
- cc. *"a window on the memory card"* is not shown
22. Claim 25:
- dd. *"a screen on the memory card"* is not shown
23. Claim 26:

Art Unit: 2187

ee. *"monitoring an amount of memory used on the memory card"* is not shown

ff. *"monitoring an amount of memory remaining free on the memory card"* is not shown

24. Claim 27:

gg. *"providing the portable memory card in a digital camera"* is not shown

hh. *"a digital camera"* is not shown

25. Claim 30:

ii. *"a memory card"* is not shown

jj. *"an area of memory of the memory card"* is not shown

26. Claim 32:

kk. *"a memory card"* is not shown

ll. *"an area of memory of the memory card"* is not shown

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an

Art Unit: 2187

application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

27. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

28. **Claims 1-6, 16-17, and 23-25** are rejected under 35 U.S.C. 102(b) as being anticipated by Bloch et al. (US 5,745,102).

29. **Claim 1** is taught by Bloch as:

mm. *A method for storing memory card usage information on a memory card, comprising: collecting information about usage of the memory card using a processor. Column 8 lines 6-22 discusses figure 5C, and shows that control unit 560, which includes a microcontroller 563, receives directory data and stores it in internal memory 564*

nn. *Recording the information about usage of the memory card in an area of memory of the memory card. Column 8 lines 19-22 show that the directory data is stored in internal memory 564.*

oo. *Accessing the information about usage of the memory card from the area of memory of the memory card using a processor.* Column 8 lines 22-25 shows that microcontroller 563 reads the stored data and provides it to the I/O ports 562, which deliver the data to the LCD drivers.

pp. *And displaying the information about the usage of the memory card on a display on the memory card.* Column 3 lines 23-37 shows that a dynamic display means can display a current list of selected file names stored on the storage device.

30. **Claim 2** is taught by Bloch as:

qq. *The method as defined in claim 1, wherein the collecting step comprises monitoring write events, read events and power-on events.* Column 10 lines 9-15 teaches that both reads and writes to segment 0 may be monitored. Column 8 lines 59-66 shows that after deenergization, the system remains idle until a switch activation is detected, and when the switch detection is detected the control unit resets an address counter. Subsequent switch activations increment the counter. Accordingly, it is inherent that the system disclosed by Bloch must monitor power-on events, as it must know when the system has been powered-on so it can tell when it has been powered off, or deenergized, so that it knows whether to reset the counter on a switch activation or deactivate the counter on switch activation.

31. **Claim 3** is taught by Bloch as:

rr. *The method as defined in claim 1, wherein the collecting step comprises changing a count associated with an event descriptor when the event occurs.*

Column 8 lines 59-66 shows that the control unit shown in figure 5C changes a counter each time a switch is pressed.

32. **Claim 4** is taught by Bloch as:

ss. *The method as defined in claim 3, wherein the collecting step further comprises storing a value parameter associated with said event descriptor when the event occurs.* Column 8 lines 59-66 show that after a timeout or deenergization, the control unit remains idle until a switch activation is detected. When a first switch activation after a timeout is detected, a counter is reset, and then is incremented. As the counter is able to be incremented, and needs to be reset after a timeout, it is inherent that the counter is storing the count associated with switch activations.

33. **Claim 5** is taught by Bloch as:

tt. *The method as defined in claim 3, wherein the collecting step comprises changing a running total associated with said event descriptor when the event occurs.* Column 8 lines 59-66 show that when the switch is activated, the counter is incremented.

Art Unit: 2187

34. **Claim 6** is taught by Bloch as:

uu. *The method as defined in claim 1, wherein the recording step comprises recording the information about usage in a dedicated area in said memory card.*

Column 8 lines 9-12 show that the directory information is stored in internal memory 564.

35. **Claim 16** is taught by Bloch as:

vv. *A system for storing memory card usage information on a memory card, comprising: an area of memory of the memory card for recording information about usage of the memory card.* Column 8 lines 8-12 shows that internal memory 564 of figure 5C is used for storing the digital representation of the filenames to be displayed.

ww. *Processor for collecting the information about usage of the memory card for accessing the information about usage of the memory card from the memory card.* Column 8 lines 19-25 shows that the control unit 560, shown in column 8 lines 8-12 to include microcontroller 563 and internal memory 564, receives the directory data, stores the directory data, and delivers it to the LCD drivers.

xx. *And a display on the memory card for displaying the information about the usage of the memory card.* Figure 5C shows display 410, shown in column 7 lines 1-9 to be a LCD, which is used to display the stored filenames.

36. **Claim 17** is taught by Bloch as:

Art Unit: 2187

yy. *A method, comprising: collecting information about usage of a portable memory card in an electronic device using a processor.* Column 8 lines 19-25 shows that the control unit 560, shown in column 8 lines 8-12 to include microcontroller 563 and internal memory 564, receives the directory data.

zz. *Recording the information about usage of the memory card in an area of memory on the memory card itself.* . Column 8 lines 8-12 shows that internal memory 564 of figure 5C is used for storing the digital representation of the filenames to be displayed.

aaa. *And displaying the information about the usage of the memory card on a display on the memory card.* Figure 5C shows display 410, shown in column 7 lines 1-9 to be a LCD, which is used to display the stored filenames. Column 8 lines 22-25 shows that microcontroller 563 reads the data and provides it to I/O ports 562, which deliver the data to the LCD drivers.

37. **Claim 23** is taught by Bloch as:

bbb. *A method, comprising: providing a portable memory card.* Column 3 lines 23-31 shows that an embodiment of the invention is a floppy disk, which is a portable memory card.

ccc. *Monitoring usage of the memory card using a processor.* Column 8 lines 19-22 shows that control unit 560, which includes microcontroller 563, receives the directory data.

ddd. *Storing the usage of the memory card in an area of memory on the memory card.* Column 8 lines 19-22 shows that control unit 560 stores the directory data in the internal memory.

eee. *And displaying the usage of the memory card on a display on the memory card.* Column 8 lines 22-25 shows that microcontroller 563 reads the data and delivers it to the I/O ports 562, which deliver the data to the LCD drivers.

38. **Claim 24** is taught by Bloch as:

fff. *The method of claim 23 wherein displaying the usage further comprises displaying the usage on a window on the memory card.* Column 3 lines 23-37 show that a LCD secured to the floppy disk housing is used to display the stored file names.

39. **Claim 25** is taught by Bloch as:

ggg. *The method of claim 23 wherein displaying the usage further comprises displaying the usage on a screen on the memory card.* Column 3 lines 23-37 show that a LCD secured to the floppy disk housing is used to display the stored file names.

40. **Claims 30-33** are rejected under 35 U.S.C. 102(b) as being anticipated by Ogawa (US 5,933,847).

41. **Claim 30** is taught by Ogawa as:

hhh. *A method for storing memory card usage information on a memory card, comprising: collecting information about usage of the memory card using a processor.* Column 25 line 65 through column 26 line 2 shows that microcomputer 201 of IC card 200 of figure 30 performs memory management. Column 30 lines 5-15 show that management processing step 530c of figure 51A includes maintaining a busy state flag and a used state flag.

iii. *Recording the information about usage of the memory card in an area of memory of the memory card.* Column 30 lines 5-15 show that the busy state flag and the used state flag are stored in the management area of each sector.

jjj. *And accessing, using a processor, the information about usage of the memory card from the memory card.* Column 26 lines 42-49 show that microcomputer 201 reads the states of logical sectors in each erase block of the flash ROM 204; and creates a storage location management table in RAM 203.

kkk. *Wherein the information about usage of the memory card comprises at least one of a measurement of how full the memory card is and the number of times data was corrected by the memory card.* As shown in figure 6, the busy state flag and the used state flag indicate if a sector has been erased, contains valid data, or contains data that may be erased, which shows how much space is available on the memory card.

42. **Claim 31** is taught by Ogawa as:

III. *The method of claim 30, wherein the information about usage of the memory card comprises a measurement of how full the memory card is. As shown in figure 6, the busy state flag and the used state flag indicate if a sector has been erased, contains valid data, or contains data that may be erased, which shows how much space is available on the memory card.*

43. **Claim 32** is taught by Ogawa as:

mmm. A system for storing memory card usage information on a memory card, comprising: an area of memory of the memory card for recording information about usage of the memory card. Column 26 lines 45-49 show that the states of logical sectors is read out, and a storage location management table is formed in RAM 203. Column 30 lines 5-15 show that a busy state flag and a used state flag are stored in a management area corresponding to the data area of a sector of the flash ROM.

nnn. And a processor for collecting information about usage of the memory card and for accessing the information about usage of the memory card from the area of memory of the memory card. Column 25 line 65 through column 26 line 2 shows that microcomputer 201 of IC card 200 of figure 30 performs memory management. Column 30 lines 5-15 show that management processing step 530c of figure 51A includes maintaining a busy state flag and a used state flag. Column 26 lines 42-49 show that microcomputer 201 reads the states of logical

sectors in each erase block of the flash ROM 204, and creates a storage location management table in RAM 203.

ooo. *Wherein the information about usage of the memory card comprises at least one of a measurement of how full the memory card is and the number of times data was corrected by the memory card.* As shown in figure 6, the busy state flag and the used state flag indicate if a sector has been erased, contains valid data, or contains data that may be erased, which shows how much space is available on the memory card.

44. **Claim 33** is taught by Ogawa as:

ppp. *The system of claim 32, wherein the information about usage of the memory card comprises a measurement of how full the memory card is.* As shown in figure 6, the busy state flag and the used state flag indicate if a sector has been erased, contains valid data, or contains data that may be erased, which shows how much space is available on the memory card.

Claim Rejections - 35 USC § 103

45. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

46. **Claims 8 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bruce et al. (6,000,006) in view of Bloch et al. (cited supra).

47. **Claim 8** is taught by Bruce as:

qqq. *The collecting step comprises changing a count associated with an event description when the event occurs.* Column 3 lines 46 show a total write counter field which indicates a total number of write erase cycles of the block identified by the physical block address field.

48. Bruce does not teach the method as defined in claim 1, or displaying the count on a display on the memory card.

49. Bloch teaches a method as shown supra with respect to claim 1, Wherein the accessing step comprises displaying the count on the display on the memory card. As identified in Bruce at column 1 lines 32-40, after a number of writes, cells of a EEPROM become unable to be accurately read, making the cells defective. As the data stored by Bruce pertains to the reliability of the storage device, it would be obvious to provide that information to a user so that they may judge the reliability of the storage device.

50. Bruce and Bloch are analogous art because they are from the same field of endeavor, the design of data storage devices.

51. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include a display as taught by Bloch on the memory device of Bruce to display write counts.

52. The motivation for doing so would have been to relieve the user of the responsibility of keeping track of how many times the blocks of the flash memory have been erased (Bloch column 3 lines 4-12) so a user could decide if a given storage device was appropriate for storing data.

53. Therefore, it would have been obvious to combine Bloch with Bruce for the benefit of knowing how close a device is to becoming unusable to obtain the invention as specified in claim 8.

54. **Claim 13** is taught by Bruce as

rrr. *Wherein the collecting step comprises changing a count associated with an event descriptor when the event occurs.* Column 3 lines 46 show a total write counter field which indicates a total number of write erase cycles of the block identified by the physical block address field.

sss. *And further comprising the steps of comparing the count to a threshold, and if the threshold is equaled or exceeded, then causing a message to be sent.*

Column 7 lines 48-54 show that when thresholds in registers 62 and 64 are exceeded by counter fields 46 and 48, AND gate 67 activates wear-level controller 70. Accordingly, when the threshold is exceeded, AND gate 67 sends a message to the wear-level controller 70.

55. Bruce does not teach the method as defined in claim 1.

56. With respect to claim 13, Bloch teaches

ttt. *The method as defined in claim 1, as shown supra with respect to claim 1.*

57. Bruce and Bloch are analogous art because they are from the same field of endeavor, the design of data storage devices.

58. At the time of the invention it would have been obvious to a person of ordinary skill in the art to include a display as taught by Bloch on the memory device of Bruce to display write counts.

59. The motivation for doing so would have been to relieve the user of the responsibility of keeping track of how many times the blocks of the flash memory have been erased (Bloch column 3 lines 4-12) so a user could decide if a given storage device was appropriate for storing data.

60. Therefore, it would have been obvious to combine Bloch with Bruce for the benefit of knowing how close a device is to becoming unusable to obtain the invention as specified in claim 13.

61. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bloch et al. (cited supra).

62. **Claim 12** is taught by Bloch as shown supra with respect to claim 1.

uuu. Bloch further teaches, at column 11 lines 3-15, that the LCD BIOS 720 which is on floppy controller card 712 and therefore part of the host delivers the filename information to the drive terminal strip 212, which shows the host writing the stored data.

vvv. It would have been obvious to one of ordinary skill in the art to also allow the LCD BIOS to read the stored data.

www. The motivation for doing so would have been to allow the LCD BIOS to verify that the data was received by the storage device and stored properly, improving the reliability of the device.

xxx. Accordingly, it would have been obvious to one of ordinary skill in the art to modify the invention of Bloch to allow the host to not only issue write commands but also issue read commands for the benefit of increasing the reliability of the storage of directory information to obtain the invention as specified in claim 12.

63. **Claim 18** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bloch et al. (cited supra) in view of Bueno (5,532,689).

64. **Claim 18** is taught by Bloch as shown supra with respect to claim 17.

65. Bloch does not teach counting the number of insertions of the memory card.

66. Bueno teaches counting physical insertions of the memory card into the electronic device at column 2 lines 54-59.

67. Bloch and Bueno are analogous art because they are from the same field of endeavor, the design of data storage devices.

68. At the time of the invention it would have been obvious to one of ordinary keep a count of the number of times a memory card has been inserted as taught by Bloch in the storage device of Bloch.

69. The motivation for doing so would have been to detect fraudulent use of the storage device, Bueno, column 3 lines 13-18.

70. Therefore, it would have been obvious to combine Bueno with Bloch for the benefit of detecting fraud to obtain the invention as specified in claim 18.

71. **Claim 26** is rejected under 35 U.S.C. 103(a) as being unpatentable over Ogawa (cited supra) in view of Bloch et al. (cited supra).

72. **Claim 26** is taught by Ogawa as:

yyy. *Wherein monitoring usage comprises monitoring an amount of memory used on the memory card and monitoring an amount of memory remaining free on the memory card.* The use of a storage location management table in the RAM of an IC memory card is shown in column 26 lines 41-48. As shown in figure 6, the busy state flag and the used state flag indicate if a sector has been erased, contains valid data, or contains data that may be erased, which shows how much space is available on the memory card. The three states shown in figure 6 indicate if a sector is free as unused, and if a sector is used as used.

73. Claim 26 is taught by Bloch as shown supra with respect to claim 23

74. Ogawa and Bloch are analogous art because they are from the same field of endeavor, the design of data storage devices.

75. At the time of the invention it would have been obvious to a person of ordinary skill in the art to use a display as taught by Bloch to inform a user how much memory is used and is how much is free as monitored by Ogawa.

76. The motivation for doing so would have been relieve the user of the responsibility of labeling the storage device, as discussed in Bloch column 3 lines 4-13. The storage device of Ogawa is disclosed in the context of a digital camera, column 1 lines 9-12. As is known to one of ordinary skill in the art, storing digital photos uses storage space.

The use of a display on a storage device as taught by Bloch on the storage device disclosed by Ogawa would allow a user to easily tell if there is space on a card for more pictures without the user having to insert the card into a camera or computer.

77. Therefore, it would have been obvious to combine Bloch with Ogawa for the benefit of relieving the user of the burden of labeling the memory card to obtain the invention as specified in claim 26.

78. **Claim 27** is rejected under 35 U.S.C. 103(a) as being unpatentable over Tsuboi et al. (US 5,499,113) in view of Bloch et al. (cited supra).

79. **Claim 27** is taught by Tsuboi as:

zzz. Providing the portable memory card in a digital camera. Column 8 lines 57-64 teaches the use of a digital camera using a floppy disk.

Art Unit: 2187

80. Tsuboi does not teach the method as recited in claim 23.

81. Bloch teaches the method of claim 23, as shown supra with respect to claim 23.

82. Tsuboi and Bloch are analogous art because they address related problems, Bloch teaches a device for storing data and Tsuboi teaches a device that needs to store data.

83. At the time of the invention it would have been obvious to one of ordinary skill in the art to combine the floppy disk of Bloch with the digital camera of Tsuboi.

84. The motivation for doing so would have been to relieve the user of the responsibility of labeling the storage device, Bloch Column 3 lines 4-13.

85. Therefore, it would have been obvious to combine Bloch with Tsuboi for the benefit of relieving the user of the responsibility of labeling the storage device to obtain the invention as specified in claim 27.

Allowable Subject Matter

86. **Claims 9 and 20-21** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

87. **Claim 9** recites the limitation "*wherein each of the displayed plurality of events descriptors is selectable, so that on selection, additional usage information will be displayed that is associated with that selected event descriptor*". This limitation is not taught or suggested by the prior art of record.

Art Unit: 2187

88. **Claim 20** recites the limitation "*wherein collecting information further comprises counting a number of times an image file was written to the memory card*". This limitation is not taught or suggested by the prior art of record.

89. **Claim 21** recites the limitation "*wherein collecting information further comprises counting a number of times music files were written to the memory card*". This limitation is not taught or suggested by the prior art of record.

90. **Claim 22** recites the limitation "*wherein collecting information further comprises tracking a number of times the memory card is formatted*". This limitation is not taught or suggested by the prior art of record.

Conclusion

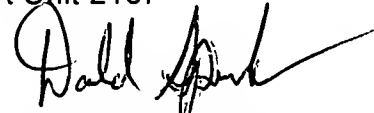
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jared I. Rutz whose telephone number is (571) 272-5535. The examiner can normally be reached on M-F 8:00 AM - 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Sparks can be reached on (571) 272-4201. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2187

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

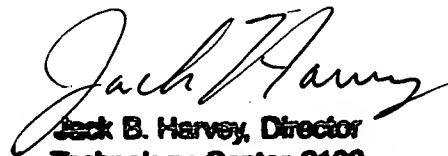
Jared I Rutz
Examiner
Art Unit 2187



DONALD SPARKS
SUPERVISORY PATENT EXAMINER

jir

JIR



Jack B. Harvey, Director
Technology Center 2100